

7389-002-25 REISSUE

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: :
ROBERT R. MILKS : GROUP ART UNIT: 1209
SERIAL NO. 08/574,194 :
FILED: DECEMBER 18, 1995 : EXAMINER: BURN
FOR: INSECTICIDE FOR IMPORTED
FIRE ANTS AND OTHER INSECT
PESTS

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RESPONSE TO OFFICIAL ACTION AND MATRIX CUSTOMER
REQUEST FOR SUSPENSION OF FURTHER ACTION VOICE CENTER

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

This request for reconsideration is responsive to the
Official Action of September 23, 1996.

REQUEST FOR RECONSIDERATION

The claims are 1-40.

The primary examiner has rejected Claims 1-3, 5-11, and
14-26 of this reissue application under 35 U.S.C. §103(a) as
being unpatentable over Vander Meer et al. Moreover, the
examiner has rejected Claims 4, 12, 13, and 27-40 under 35
U.S.C. §103(a) as being unpatentable over Vander Meer et al.
taken together with Marks.

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In his action, the primary examiner recognizes that the Vander Meer et al. reference discloses vegetable oil soluble anionic fluorochemical surfactants and their use in preparing bait formulations having insecticidal action against fire ants and cockroaches. The examiner also notes that the reference teaches that those surfactants may be incorporated into a vegetable oil attractant such as soybean oil and absorbed onto an edible food carrier such as corn grits to form a toxic bait.

Although the examiner also recognizes that Claims 7-11 of this application recite application rates and surfactant carrier ratios that are not specified by the reference, the examiner argues that a skilled artisan would select proper rates and ratios through routine experimentation and that, in addition, the criticality of those specific rates and ratios has not been proven.

Claims 18, 19, 25, 26, 32, 33, 39, and 40 of the reissue application also explicitly recite specific application rates and surfactant carrier ratios such as those that are recited in Claims 7-11. Moreover, all of the claims of this reissue application require that the vegetable oil insoluble anionic fluorochemical surfactant must be applied in an insecticidal

concentration to a carrier in the form of a dispersible non-liquid edible food to form a toxic bait. That is, the delayed-action insecticidal composition claimed in this reissue application must contain an insecticidally effective amount of the vegetable oil insoluble anionic fluorochemical surfactant.

The Vander Meer et al. reference was included in applicant's citation of prior art filed on June 04, 1991 in the parent patent application. It was fully considered by the examiner during the examination of the parent patent application, and it is listed in the references cited in column 2 on page 1 of the 5,198,567 patent (hereinafter referred to as "the Milks patent"). The teachings of the Vander Meer et al. reference are discussed in Example 4 of the parent Milks patent and the present application for reissue of that patent. Example 4 points out that the Vander Meer et al. reference states in the left hand column on page 1196 that "[l]arge-scale RIFA [red imported fire ant] control is most effectively done with toxicants formulated in baits..." and that "oil solubility is an essential property for any potential RIFA toxicant." (Emphasis supplied.)

Example 4 further states that:

Therefore, the article concludes in the right hand column on page 1196 that "the solubility properties of the compounds listed in Table 9," including FC-95 anionic fluorosurfactant, which is totally insoluble in vegetable oils, such as soybean oil, "make them poor candidates for RIFA control." Rather than formulate a bait, the article indicates that FC-95 anionic fluorosurfactant was formulated at a 1.0% concentration in honey/water (1:1) and tested against the red imported fire ant.¹

As the Examiner will note, the teachings of the Vander Meer et al. reference are directed primarily to toxicants formulated in baits, and those formulations are prepared by dissolving the toxicant in soybean oil and then absorbing the solution onto a suitable carrier such as corn grits or pregel defatted corn grits. Page 1196 paragraph bridging the columns first two sentences. It is in that context that the reference teaches that oil solubility is an essential property for any potential RIFA toxicant. Although the reference teaches that materials that are not oil soluble were tested in standard bioassays using honey/water formulations, none of the oil insoluble toxicants was formulated as a bait.

Contrary to the explicit teachings of the Vander Meer et al. reference, the present applicant discovered that anionic fluorochemical surfactants which are insoluble in oil can be

¹Column 7 lines 23-32.

formulated perfectly well into baits according to the disclosure of the present application. Moreover, applicant provided in Example 4 side-by-side evaluations of a 1.0% FC-95 anionic fluorosurfactant bait formulation according to the present invention and a 1.0% concentration of FC-95 anionic fluorosurfactant formulated in honey/water (1:1) as described in the Vander Meer et al. reference for their effects against whole colonies of red imported fire ants. Applicant prepared his bait formulations by dissolving the oil insoluble anionic fluorosurfactant in acetone and adding the acetone solution of the fluorosurfactant with thorough mixing to the solid food carrier (i.e., dried yellow corn meal), evaporating the acetone from the corn meal, and then mixing the anionic fluorosurfactant impregnated corn meal with the soybean oil. Column 7 lines 56-66.

Applicant's tests revealed that the bait formulations according to the present invention were quite effective (paragraph bridging columns 8 and 9), but that the Vander Meer et al. honey/water formulation was essentially ineffective. (Column 9 first full paragraph.) Moreover, the toxic baits according to the present invention continued to be effective for prolonged periods, whereas fire ant mounds treated with

the honey/water formulation soon were active and thriving.

Column 9 lines 18-46.

Example 4 also reports the results of a second set of tests (column 9 line 47 - column 10 line 3) and concludes that:

In summary, the tests described above evidence that the FC-95 anionic fluorosurfactant bait formulation was extremely effective (five of six treated red imported fire ant mounds killed, the sixth mound being abandoned, as well as two untreated mounds killed). This performance was observed in spite of the undesirable manner in which the mounds were treated (FC-95 anionic fluorosurfactant bait formulations are more effective when sprinkled around the perimeter of the mounds and when deployed for longer than twenty-four hours, as described in the examples above). In contrast, FC-95 anionic fluorosurfactant in 1:1 honey/water solution prepared as described in the article was ineffective (zero mounds killed and minimal ant mortality observed). [Column 10 lines 4-24.]

Example 5 of the Milks patent and the present reissue application reports additional tests, with similar results, for baits containing a different oil insoluble anionic fluorosurfactant, FC-98. Although the tests of Example 5 do not include comparisons with a honey/water solution, the tests in Example 5 do show that the excellent results obtained with bait formulations according to the invention in Example 4 are also obtained using other oil insoluble anionic fluorosurfactants as well. Of course, there is no reason to

expect the results using honey/water formulations of additional anionic fluorosurfactants to be any different from the results that were obtained with honey/water formulations in the tests reported in Example 4.

In short, the Vander Meer et al. reference was fully considered by the Examiner in the parent application (i.e., the same Examiner who issued the Office Action in the present application), and it was not applied against the claims of the parent application that issued as the claims of the Milks patent.

The Examiner's decision in the parent application not to apply the Vander Meer et al. reference was correct. The Vander Meer et al. reference explicitly states that oil insoluble anionic fluorochemical surfactants are poor candidates for the formulation of baits and that they should be used as honey/water formulations. Moreover, Examples 4 and 5 of the Milks patent and the present application establish that such honey/water formulations are useless as a practical matter.

Since the reference teaches explicitly that oil solubility is an essential property for any potential RIFA toxicant because insoluble anionic fluorochemicals are not

suitable for toxicants that are formulated in baits, what applicant discovered is directly contrary to the explicit teachings of the prior art. Doing what the prior art tries to avoid is the very antithesis of obviousness. In re Buehler, 515 F.2d 1134, 185 USPQ 781 (CCPA 1975); and In re Rosenberger, 386 F.2d 1015, 156 USPQ 24 (CCPA 1967). Stated another way, doing what the prior art suggests that you should not do is the "epitome of unobviousness." In re Hughes, 550 F.2d 1273, 193 USPQ 141 (CCPA 1977). One following the teachings of the Vander Meer et al. reference would have concluded that attempts to prepare bait formulations using oil insoluble toxicants would necessarily result in a bait containing an ineffective amount of the toxicant. However, the claims of this application require the baits to contain effective amounts of oil insoluble toxicants.

Moreover, applicant has demonstrated that his bait formulations using vegetable oil insoluble anionic fluorochemical toxicants are far superior to Vander Meer et al.'s recommended formulations of such toxicants in honey/water formulations.

Since the prior art reference applied by the Examiner teaches away from applicant's invention, it does not support a

prima facie case for obviousness. Moreover, applicant has established by side-by-side comparisons of his bait formulations with the recommended honey/water formulations of the reference that the claimed bait formulations are far superior to the prior art formulations. Since the reference relied on for the rejection teaches that oil insoluble toxicants would be inferior materials for preparing baits, applicant's finding that baits properly prepared with those toxicants are in fact excellent (i.e., not inferior) is truly unexpected. Compare In re Jezl, 396 F.2d 1009, 1012-13, 158 USPQ 98, 100 (CCPA 1968).

Consequently, since the comparative evidence of record demonstrates that applicant's claimed baits possess biological activities beyond what could reasonably have been predicted by persons of ordinary skill in the art in view of the teachings of Vander Meer et al., it is unnecessary even to determine whether the claimed baits are *prima facie* obvious since, even if they are (which they are not), any *prima facie* case has been overcome by the evidence. In re Taborsky, 502 F.2d 775, 183 USPQ 50 (CCPA 1974). Consequently, the rejection of Claims 1-3, 5-11, and 14-26 as being unpatentable over Vander Meer et al. should be withdrawn.

The rejection of Claims 4, 12, 13, and 27-40 as being unpatentable over Vander Meer et al. taken together with Marks should also be withdrawn because the Marks patent does not overcome the deficiencies of the Vander Meer et al article. The Marks patent teaches compositions comprising a cellulosic film former, an insecticide, and a liquid vehicle including a volatile alcohol. That combination of ingredients forms a liquid composition that is squeezed in a liquid stream onto a portion of an animal's body. As the liquid vehicle in the solution evaporates, the solution congeals to form a dry-to-the-touch bead on the animal's body, after which it becomes a water-soluble cellulosic film containing an insecticide from which the insecticide is released over an extended period of time.

There are no teachings in the Marks reference concerning the preparation of baits. There are no teachings in the Vander Meer et al. reference concerning the preparation of liquid materials to be applied to an animal to form a time-release composition. The fact is that applicant has managed to make excellent bait formulations that Vander Meer et al. leads away from by employing methods which in part include steps that Marks uses to prepare different liquid gellable

compositions that can be applied to animal skins and dried. Neither reference provides any motivation at all for combining those two references. There is no suggestion in the Vander Meer et al. article that would lead one to look for teachings concerning bait formulations in the Marks patent. Similarly, there is nothing in the Marks patent that suggests the applicability of anything contained in the Marks patent to the bait formulations that are the subject matter of the Vander Meer et al. article. Nothing in either reference provides a motivation for the combination of those two references.

It is legal error to reconstruct applicant's claimed invention from the prior art by using applicant's claims as a "blueprint." Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 227 USPQ 543 (Fed. Cir. 1985). When the prior art references require selective combination to render obvious the subsequent invention, there must be some reason for the combination other than the hindsight obtained from the subsequent invention itself. Panduit Corp. v. Dennison Mfg. Co., 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985), *remanded*, 475 U.S. 809, 229 USPQ 478 (1986), *on remand*, 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987); Interconnect Planning Corp. v. Feil, *supra*; In re Gorman, 933 F.2d 982, 18 USPQ2d 1885 (Fed.

Cir. 1991); and In re Dow Chemical Co., 837 F.2d 469, 5 USPQ2d 1529 (Fed. Cir. 1988). However, the Vander Meer et al. article and the Marks patent simply do not suggest that there would be any likelihood of success in attempting to prepare Vander Meer et al.'s baits using oil insoluble anionic fluorochemical toxicants.

For the foregoing reasons, the rejection of Claims 4, 12, 13, and 27-40 as being unpatentable over a combination of the Vander Meer et al. and Marks references should also be reconsidered and withdrawn.

REQUEST FOR SUSPENSION OF ACTION

As applicant's attorney indicated in his letter of October 7, 1996, counsel for applicant has been informed that Robert R. Milks, the applicant, has declared bankruptcy. Accordingly, it is respectfully requested that further proceedings in this application be stayed during the pendency of the bankruptcy proceeding.

The Examiner is advised (1) that the Milks patent is involved in Interference No. 103,630, (2) that the party Vander Meer et al., the opposing party, has filed motions attacking the patentability of the claims in the Milks patent,

and (3) that the board has issued a decision holding Claims 1-13 of the Milks patent to be unpatentable on the basis of purported admissions by the party Milks. However, the party Milks has requested reconsideration of the board's decision, and the board has stayed proceedings in the interference while the party Milks is in bankruptcy. The board did not decide any of the party Vander Meer et al.'s motions concerning the patentability of Claims 1-13 of the Milks patent. Moreover, the board did not decide the party Milks' motion to add this reissue application to the interference.

Respectfully submitted,

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